

REMARKS

Claims 1-24 are pending in this Application. In the Office Action mailed May 2, 2006, the Examiner:

1. Rejected Claims 1, 2, 8-9, 11-15, 17-20 and 23 under 35 U.S.C. § 103(a) as being obvious over Matthews et al. (U.S. Patent No. 3,838,998; herein "Matthews") in view of Matsubara et al. (U.S. Publication No. 2002/0004111; herein "Matsubara");
2. Rejected Claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara in view of Seki et al. (Japan Abstract JP 07024299; herein "Seki");
3. Rejected Claims 4 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara in view of Aston et al. (U.S. Patent No. 4,475,936; herein "Aston");
4. Rejected Claims 7 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara in view of Veatch et al. (U.S. Patent No. 2,978,340; herein "Veatch");
5. Rejected Claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara in view of Kizilshtei et al. (English translation of Abstract, SU 1650196; herein "Kizilshtei") and Yamada et al. (US Publication No. 2001/0043996; herein "Yamada") and Brown et al. (US. Patent No. 4,235,753; herein "Brown"); and
6. Rejected Claims 21 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara in view of Netting (US. Patent No. 3,888,957; herein "Netting");
7. Rejected Claim 24 under 35 U.S.C. § 103(a) as being unpatentable over Matthews in view of Matsubara and Veatch

Applicants respectfully address the Examiner's rejections below.

Claim Rejection - 35 U.S.C. § 103(a)

The Examiner rejected Claims 1-23 under 35 U.S.C. § 103(a) as being obvious over Matthews in view of Matsubara. The Examiner has removed the prior rejection against these claims as being anticipated by Matthews. On page 3 of the Office Action, the Examiner states, "it is not clear if the agglomerate precursor has an alkali metal oxide content of less than 10%." On page 8 of the Office Action, the Examiner states, "Matthews et al. fail to disclose the alkali metal oxide content of the microspheres." Applicants respectfully disagree with the statements, pointing out again that Matthews explicitly teaches away from Applicants' invention as claimed in independent Claims 1 and 13 by requiring "compositions in the approximate proportion by weight of 60-20-20, the numbers representing the silica, alumina and soda oxides" (Col. 6, ll. 53-56; emphasis added), which means that Matthews requires their microspheres have an alkali metal oxide content of at least 20%, a requirement arrived at, as pointed out by Matthews, after making various modifications using only a very specific soda feldspar that "comes from a naturally occurring, igneous deposit near Wenatchee, Washington." Matthews further teaches that selection of this unique feldspar is purposeful and very specific, because "it is intumescent or bloatable at glassifying temperatures" due to its "entrapped gas" that "contribute substantially to the intumescence" of the precursor (Col. 5, ll. 59-65; Col. 6, ll. 3-10). Because Matthews does not teach claimed features of Applicants' invention, such as an

agglomerate precursor with "an alkali metal oxide content of less than about 10 wt. % based on the weight of the precursor," Matthews does not, on its whole, teach Applicants' claimed invention. Moreover, Matthews specifically teaches away from Applicants' invention by requiring an entirely different alkali metal oxide content. In teaching away from Applicants' claimed invention, there is no suggestion or motivation, either in Matthews or in the knowledge generally available to one of ordinary skill in the art to modify Matthews or to combine it with any other reference, such as Matsubara alone or when combined with Seki, Aston, Veatch, Kizilshtei, Yamada, Brown, and/or Netting. Clearly, then, Matthews does not provide any suggestion explicit or otherwise to make, as a whole, Applicants' claimed invention. Applicants respectfully request the Examiner provide evidence for a suggestion of desirability in Matthews to make a different microsphere than what is specifically provided in Matthews. In addition, Applicants respectfully request the Examiner provide evidence as to why one of ordinary skill in the art would turn to Matthews' composition requiring a highly specific proportion by weight of 60-20-20 of silica, alumina and soda oxides using Wenatchee, Washington albite soda feldspar to provide microspheres of more than 5,000 microns and then combine it with another reference to make a different composition as claimed by Applicants. The Examiner combines Matthews with Matsubara and states that the combination is obvious over Applicants' claimed invention. Matsubara, however, also teaches an entirely different microsphere composition and method of making than Applicants' invention, as claimed in independent Claims 1 and 13, and also teaches a different microsphere and method of making than that

taught by Matthews. For example, Matsubara's microspheres require little or no alkali metal oxide because "elution of alkali. . . causes various inconveniences" (para. [0025]), are not provided as an agglomerate precursor but taught specifically not to be agglomerates and instead are provided as a wet pulverized particle dispersion in a slurry with particles "at most 3.0 μm " (para. [0043], [0045]) which are not formed into agglomerate precursors to be fired but formed into droplets by spraying under pressure (para. [0046]), and then formed into microspheres of an entirely different size range with an "average particle size of at most 15 μm " because "if the average particle size is exceeds 15 μm . . . a smooth surface can not be obtained and degradation of outer appearance and deterioration of various properties are unpreferably caused" (Abstract, para. [0017]). Accordingly, Matsubara teaches away from the claimed features of Applicants' claimed invention and also teaches away from various teachings of Matthew. In addition, there is no evidence or motivation to combine Matsubara's very small and unique particles of less than 15 μm prepared by forming droplets with Matthews' "large, high quality hollow glass microspheres in a size ranging to several thousand microns" (see Matthews, principal object of invention, Col. 2, ll. 48-52). Because there is no reasonable or proper suggestion or motivation to combine Matthews with Matsubara, Applicants submit that the claims are not obvious over Matthews in view of Matsubara. Applicants respectfully request the Examiner provide evidence and factual support as to why such a combination would ever provide Applicants' claimed invention. Importantly, Applicants have shown that neither Matthews alone nor when combined with Matsubara teach or suggest all the claimed features

of independent Claims 1 and 13. As such, Matthews alone or when combined with Matsubara and any other reference, is not obvious over independent Claims 1 and 13 and all claims depending therefrom. Applicants respectfully request the Examiner remove the rejections to Claims 1-23 under 35 U.S.C. § 103(a).

In numbered paragraph 21 of the Office Action, the Examiner rejected Claim 24 as being unpatentable over Matthews in view of Matsubara and Veatch. For the reasons set forth above, Applicants submit that Matthews in combination with Matsubara and Veatch do not teach or suggest Applicants' claimed invention as a whole or all its claimed features. Matthews does not teach the method or composition of Claim 24 and actually teaches away from such a composition and method. Similarly, Matsubara teaches away from each step of the method of Claim 24. Therefore, because Matthews teaches away from Applicants' claimed invention, there is no reasonable or proper suggestion or motivation to combine Matthews with any secondary reference, such as Matsubara and Veatch to arrive at Applicants' claimed invention. Contrary to the Examiner's statement, it would not have been obvious to one of ordinary skill to use a single ingredient of Matsubara--an alkali metal oxide content of less than 10%--that was designed specifically to prevent "elution of alkali" from Matsubara's very small microspheres that have an average particle size of at most 15 μm and for "lowering of adhesiveness with matrix resin" and a composition of Matthews, which, as stated above, is taught by Matthews to specifically require Wenatchee, Washington albite soda feldspar with a high metal oxide content of 20% for a stated principal purpose of

providing "large, high quality hollow glass microspheres in a size ranging to several thousand microns" (Col. 2, ll. 48-52). Furthermore, contrary to the Examiner's statement, Applicants can find no stated need in either Matthews or Matsubara to have low alkali metal oxide content to enhance chemical resistance of the microspheres. In addition, the teaching away of Applicants invention by Matthews (and Matsubara) is not overcome by combining with Veatch. Applicants reiterate that because Matthews teaches away from Applicants' claimed invention, there is no reason, suggestion or motivation to combine Matthews with any secondary reference nor is there any reasonable expectation of success. Applicants respectfully submit that Claim 24 is not obvious over Matthews alone or in view of any cited reference or combination of references. Applicants request entry and allowance of Claim 24 as provided in the Listing of Claims beginning on page 3 of this paper.

Statement of Commonly Owned Invention

In numbered paragraph 3, the Examiner again advised Applicants of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time of invention in order to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f), or (g) prior art under 35 U.S.C. 103(a). Applicants hereby state that the rights to each invention of the claimed subject matter in the instant Application were, at the time of such invention, commonly owned by the Assignee as a consequence of invention assignments from the named inventors.

CONCLUSION

Applicants respectfully submit that the Application is in condition for allowance, and pursuant to the filing of this Amendment, Applicants earnestly seek such allowance of Claims 1-24. Should the Examiner have questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact Applicants' representative at 214.999.4330. Applicants, through their representative, stand ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 129843-1102. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicants respectfully request that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

Attorney No. 129843-1102 (HARD1.090A2)
Customer No. 60148

AMENDMENT AND RESPONSE
APPLICATION NO. 10/648,585

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This is intended to be a complete response to the Office Action mailed October 23, 2006.

Please direct all correspondence to the practitioner listed below at Customer No. 60148.

Respectfully submitted,

Monique A. Vander Molen
Monique A. Vander Molen
Registration No. 53,716

Gardere Wynne Sewell LLP
1601 Elm Street, Suite 3000
Dallas, Texas 75201-4761
Telephone: 214.999.4330
Facsimile: 214.999.3623
Email: ip@gardere.com

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